Design Document

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Restaurant Management System

Software Engineering(IT350)

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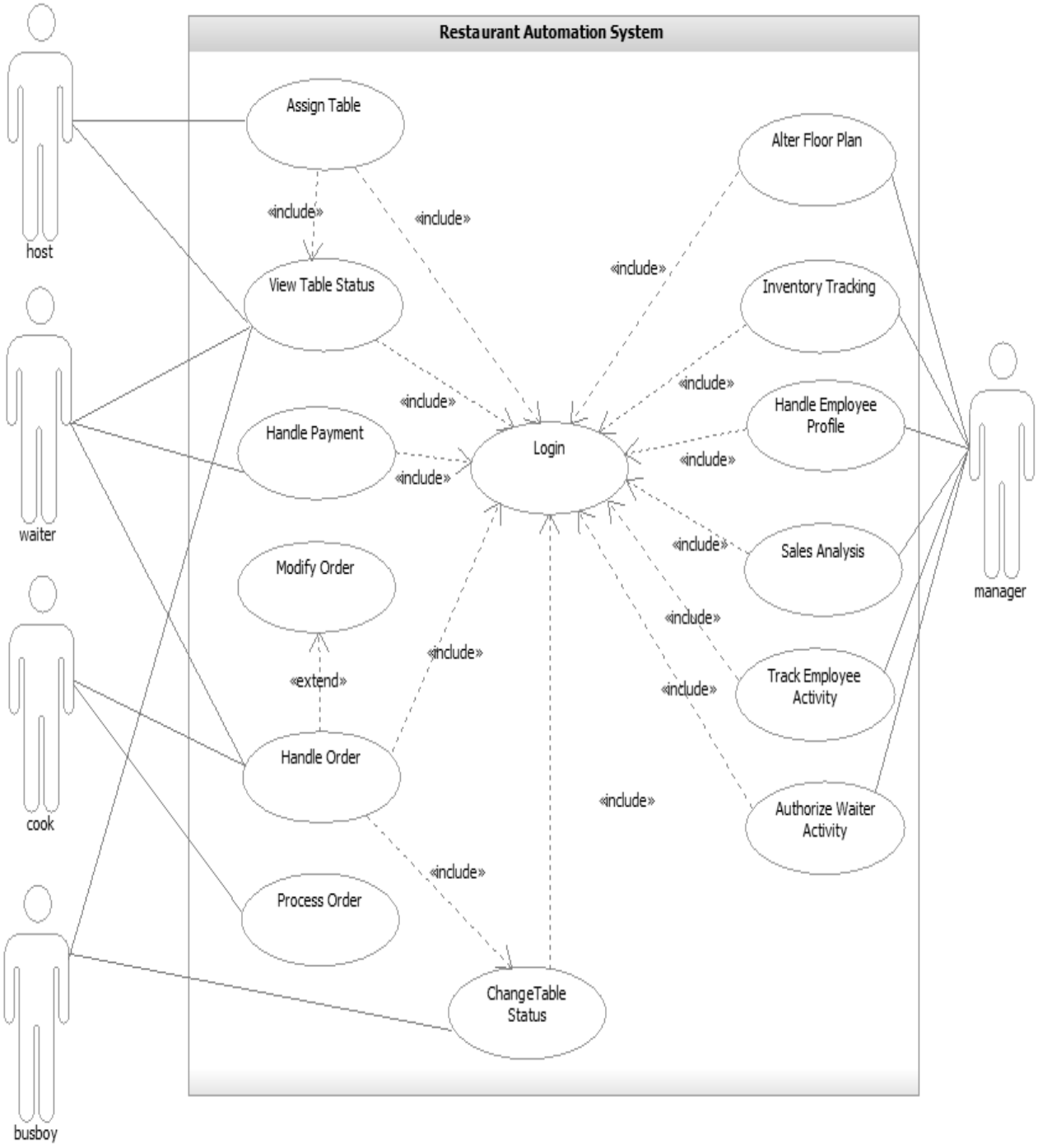
1. Use case diagram:



Description :

- **Assign Table**: The host will be able to assign a table to a waiter once he has assigned the same to a person.
- **View Table Status**: The host, waiter and bus boy would be able to see the status of each table with the following color code.
- **Change Table Status**: The host would be able to assign tables and change their status from green to yellow. The waiter would be able to change the table status .
- **Handle Order:** The waiter would be able to browse the menu of the items available and place order for each table based on the persons choice. The cook would be able to view these orders.
- **Handle Payment:** The waiter handles the payment made by the person for the placed order.
- **Process Order**: The cook would be able to process the order and notify the appropriate waiter once the food is ready.
- **Modify order:** Once the waiter has placed the order, he/she can modify it by adding or removing items if the person requests for it.
- **Handle Employee Profile:** The manager would be able to create a new profile when a new employee joins the restaurant and can modify their status anytime he wants.

2. Use Case Description:

Use Case Name	Handle order
Brief description	The waiter handles the order placed by the person.
Primary actors	Waiter
Second actors	Cook
Pre Conditions	The table must be occupied by the Person.
Main flow	1. Include (Login). 2. The system displays the list of tables assigned to the waiter. 3. Include (Change Table Status). 4. The Person specifies the items he would like to have. 5. The waiter starts a new order. 6. The waiter selects the “add item” option in the system. 7. The system generates a list of categories available in the menu. 8. The waiter selects the specific category under which he could find the specified item. 9. The waiter adds the item to the order. 10. The waiter repeats step 7 to 10 until all the items have been added to the order. 11. The waiter places the order. 12. The system adds the order to the order queue. 13. The system notifies the cook that a new order is added to the queue. At any point, the waiter modifies the placed order as per the Person’s request.
Post Conditions	None
Non-Functional Requirements	The order queue should get updated once a new order is updated.

Use Case Name	Process Order
Brief description	The cook would be able to process the order and notify the appropriate waiter once the food is ready.
Primary actors	Cook
Second actors	None
Pre Conditions	Order is added to the order queue.
Main flow	1. Include (Login). 2. Includes (View order) 3. The cook selects the first order in the order queue. 4. The cook changes the order status to ready once the food items have been cooked.
Post Conditions	The system notifies the waiter that the order is ready.

Use Case Name	Assign table
Brief description	The host can assign un-occupied tables to Persons.
Primary actors	Host
Second actors	None

Use Case Name	Handle Payment
Brief description	The waiter handles the payment made by the Person for the placed order.
Primary actors	Waiter
Second actors	None

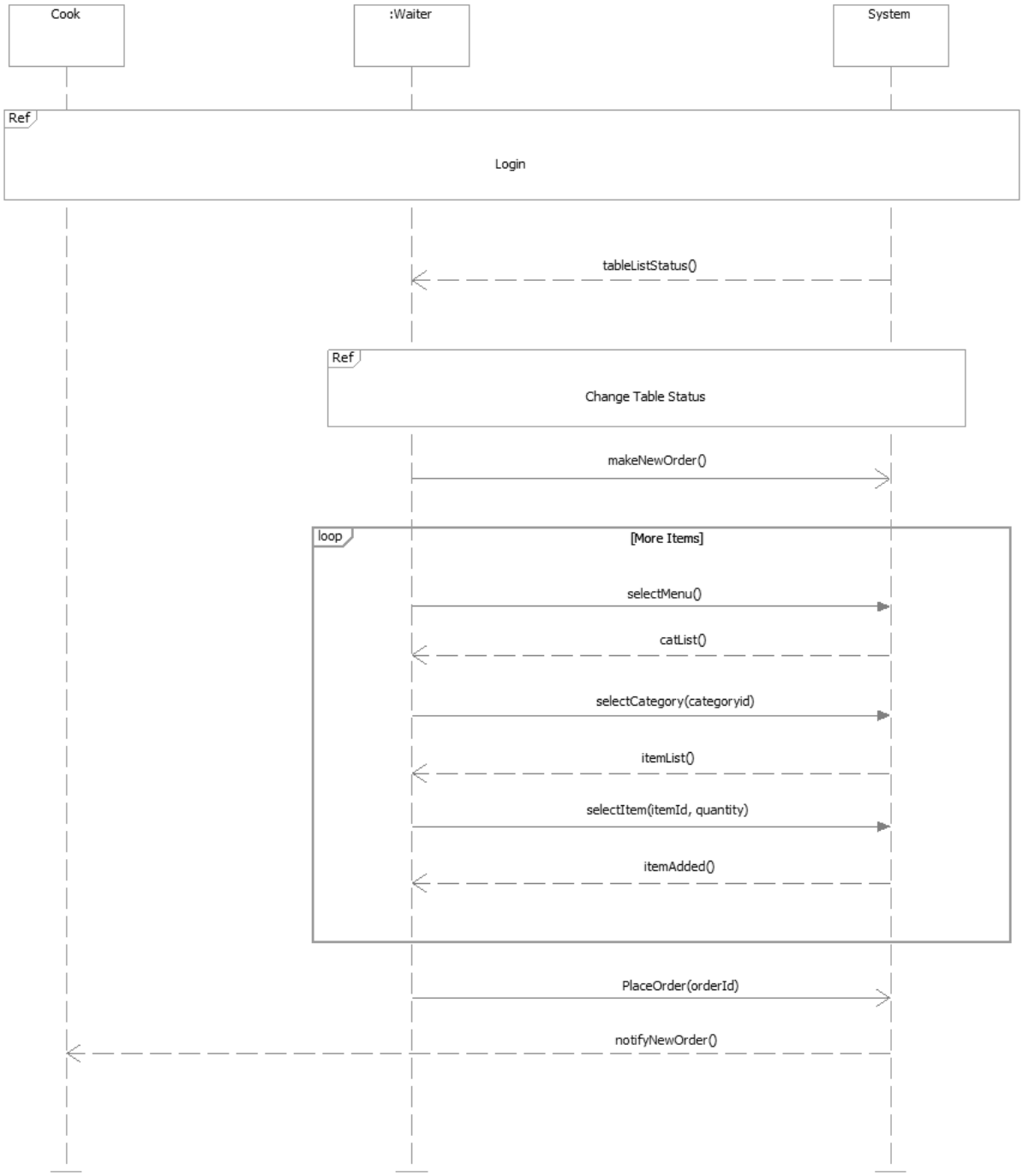
Use Case Name	Change Table Status
Brief description	The host, waiter, busboy can change the status of the table from free to occupied, occupied to dirty, dirty to free respectively.

Primary actors	Busboy, Waiter, Host
Second actors	None

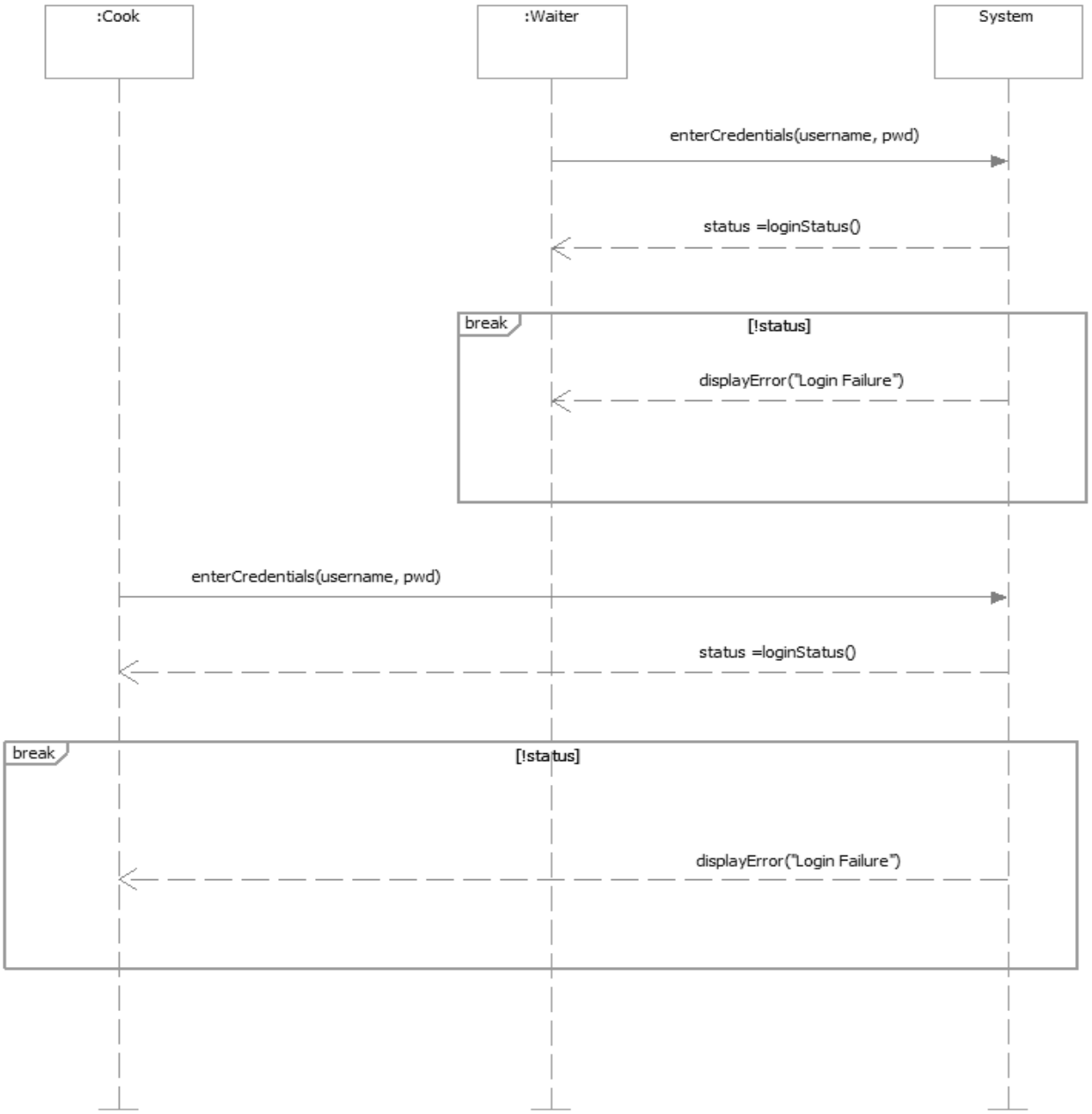
Use Case Name	Handle Employee Profile
Brief description	The manager creates a new profile when a new employee joins the restaurant as well as modify the profile of other employees when needed.
Primary actors	Manager
Second actors	None

Use Case Name	Modify Order
Brief description segment1	The waiter modifies the order if the Person requests for it.
Primary actors	Waiter
Second actors	None
Segment 1 Pre Conditions	The order is placed by the waiter.
Segment 1 flow	The waiter adds or removes items from the placed order.
Segment 1 Post Conditions	The order has been modified.

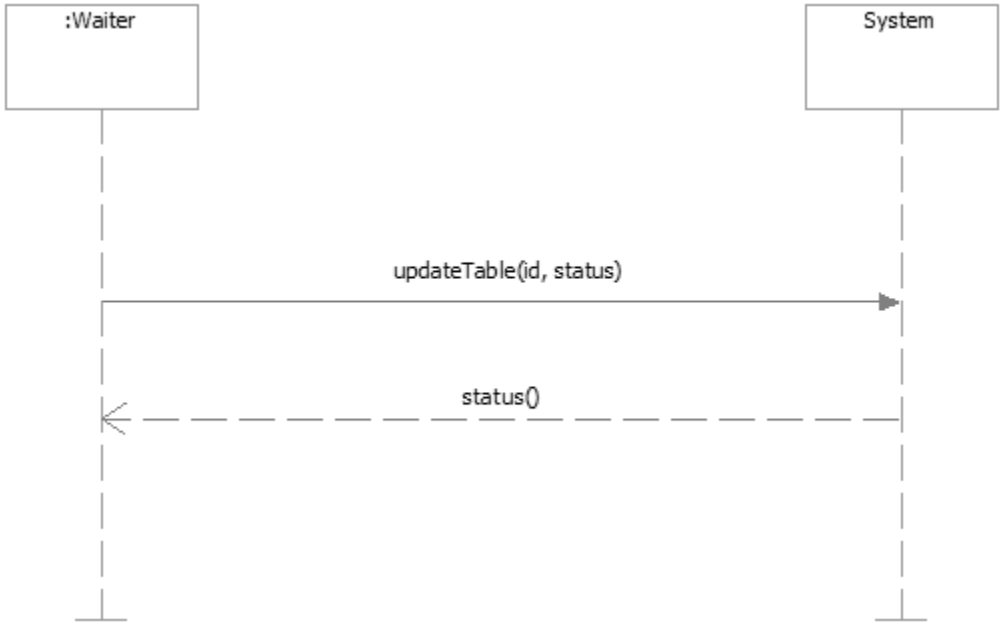
3. System Sequence Diagram:



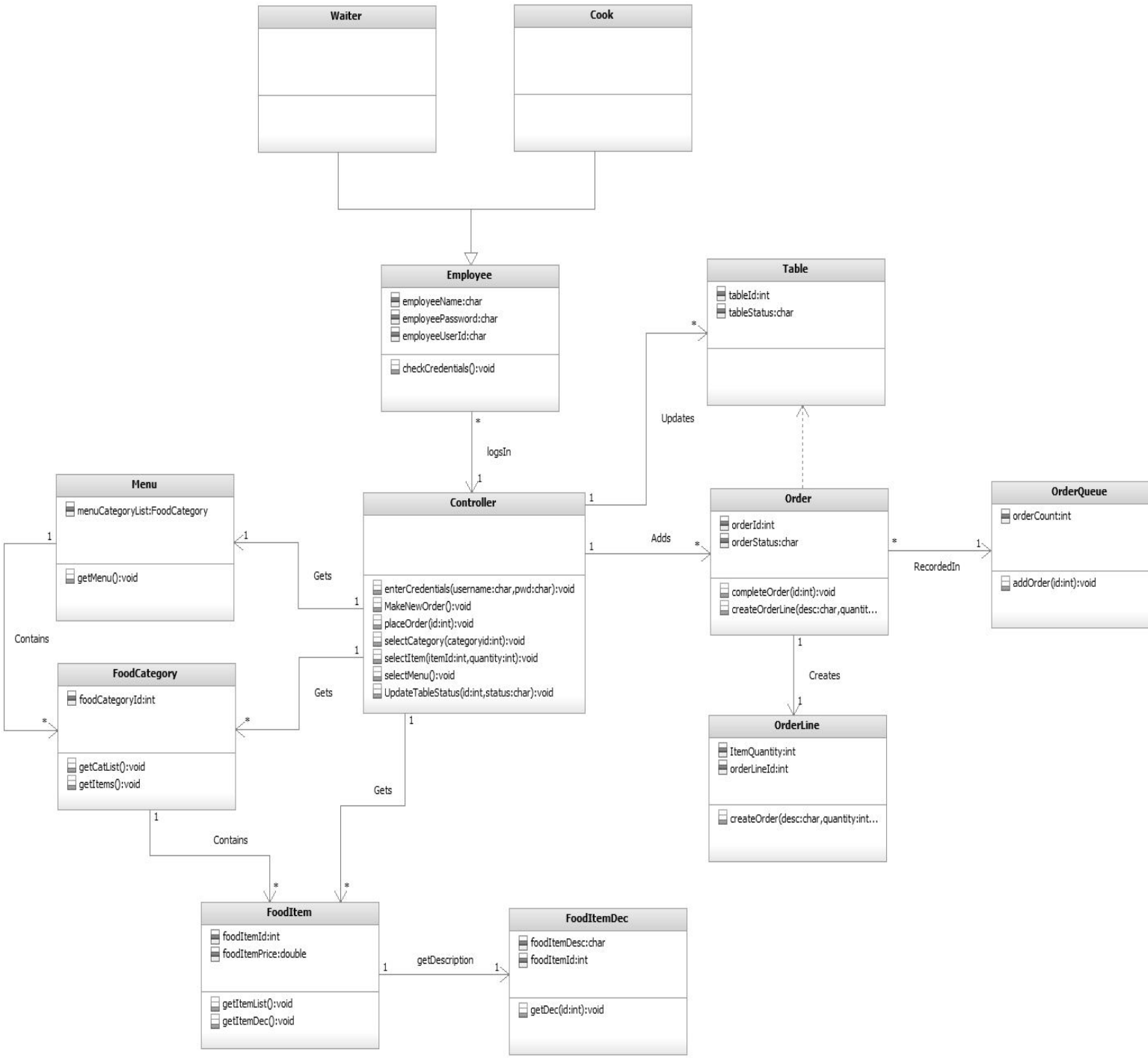
Login :


:Cook
:Waiter
System
enterCredentials(username, pwd)
status =loginStatus()
break
[!status]
displayError("Login Failure")
enterCredentials(username, pwd)
status =loginStatus()
break
[!status]
displayError("Login Failure")

Change Table Status:



4. Design Class Diagram :



5. Architecture Diagram :